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COMMONWEALTH of VIRGINIA

L. Preston Bryant, Jr. Secretary of Natural Resources

DEPARTMENT OF ENVIRONMENTAL QUALITY
Street address: 629 East Main Street, Richmond, Virginia 23219
Mailing address: P.O. Box 1105, Richmond, Virginia 23218
Fax (804) 698-4500 TDD (804) 698-4021
www.deq.virginia.gov

David K. Paylor Director

(804) 698-4000 1-800-592-5482

January 22, 2008

Joanna Bateman Remedial Project Manager Fort Eustis U.S. Army Garrison IMNE-EUS-PW-E (Bateman) 1407 Washington Boulevard Fort Eustis, Virginia 23604-5306

RE: Revised Draft Remedial Investigation Report

80th Division Reserve Site Fort Story, Virginia

Dear Ms. Bateman:

The Virginia Department of Environmental Quality (DEQ) has received the *Revised Draft Remedial Investigation Report* (RI Report) for the 80th Division Reserve Site located at Fort Story, Virginia. The April 2007 RI Report, prepared by Malcolm Pirnie, Inc., was received by the DEQ on April 23, 2007.

The original *Draft Remedial Investigation Report* was submitted to the DEQ on May 26, 2005. DEQ comments on the May 2005 RI Report were submitted to the Army from both the Remedial Project Manager and the Risk Assessor on March 22, 2006.

Thank you for providing the DEQ's Office of Remediation Programs the opportunity to review the above-referenced Revised Draft RI Report. Subsequent to DEQ's internal review, this office has the following comments:

Remedial Project Manager Comments:

Specific Comments:

14. (Page 6-46, Section 6.6.3, Residential Population Exposure Scenarios, Soil) Please provide all background soils data and supporting statistical evaluations.

Response: Additional text added to Section 6.1.2 and 6.6.3 concerning background data.

Please see the Risk Assessor Comments, General Comments, detailed below.

15. (Page 6-46, Section 6.6.3, Residential Population Exposure Scenarios, Groundwater)
The Department has reviewed the document (Siudyla, E.A., May, A.E., Hawthorne, D.W., 1981; Ground Water Resources of the Four Cities Area, Virginia; Commonwealth of Virginia, State Water Control Board, Bureau of Water Control Management) referenced in this section. It is not possible to determine whether or not any of the wells used in the SWCB, 1981 study have been impacted by contamination. Therefore, the SWCB, 1981 study is not sufficient (by itself) to determine background levels for this site. The Department recommends also obtaining site-specific background data. The Groundwater Flexibilities statement and related information (previously provided to you) may provide some guidance for the development of additional lines of evidence.

Response: This bullet was deleted because the residential scenario was deleted.

Please see the Risk Assessor Comments, General Comments, detailed below.

Risk Assessor Comments:

General Comments:

Please note that the residential risk scenario has been removed from the revised risk assessment based on Army (USAEC) guidance. If the residential scenario is not included, land use controls (LUCs) will be needed to insure that residential use does not occur in the future. The drinking water scenario has also been removed from the risk assessment. It should be noted that the DEQ considers all groundwater to be potential drinking water sources. Therefore, this pathway should be assessed. Additionally, please note that several contaminants have concentrations above Maximum Contaminant Levels (MCLs) and/or tap water Risk Based Concentrations (RBCs) including antimony, iron, manganese, vanadium, tetrachloroethene (PCE), and trichloroethene (TCE). The original risk assessment included a residential drinking water scenario and unacceptable risks and Hazard Quotients (HQs) were driven by arsenic, iron, and manganese. Antimony, vanadium, PCE, and TCE also contribute. Separating the HQs by target organ and formalizing the background comparison may help with risk management decisions for this site.

Specific Comments:

2. (Page 1-3, Section 1.2.2)

Since there was an antifreeze storage tank at the site, did any of the sampling events include analysis for antifreeze ingredients such as ethylene glycol or propylene glycol?

Response: No.

The response indicates that antifreeze ingredients were not sampled for in the area of the antifreeze tank. Samples should be collected or a rationale should be presented for not doing so.

4. (Page 6-1, Section 6.1)

The final version of RAGS, Part E (EPA, 2004) should be cited rather than the interim version.

Response: Text revised.

The date was changed on the reference but "interim" should be changed to "final".

6.(Page 6-17, Section 6.4.2)

The exposure assessment should also consider the potential for vapor intrusion into buildings from contaminated groundwater.

Response: Additional text added to Section 6.4.1 assessing the vapor intrusion scenario.

The comment requested an assessment of the potential for vapor intrusion into buildings. The revision indicates that since there are no buildings currently located at the site, the scenario would not be evaluated for current land use. However, the response does not address future buildings. If the pathway is not assessed, a prohibition on future building will be needed.

Additional Comments:

Table 6-12:

For future assessments note that the equation for dermal exposure to groundwater is different for organics and inorganics. RAGS, Part E should be consulted for the organic equations.

Section 8.4:

DEQ cannot concur with a no further action decision. Additional evaluation of groundwater risk needs to be conducted, as noted above. Also, LUCs will be needed since a residential evaluation was not conducted. LUCs are considered a remedial action.

DEQ review of this Revised Draft RI Report does not preclude any future Natural Resource actions under CERCLA or OPA (43 CFR Part 11 and 15 CFR Part 990). As a Natural Resource Trustee, the Commonwealth of Virginia reserves the right to seek damages for injury or loss of the use of natural resources that may have been caused by a past release and/or an environmental cleanup of a CERCLA hazardous substance at this site. Note also that the DEQ did not solicit comments from other Trustee agencies at this time.

This letter is intended only as guidance and is not intended to be a case decision under the Virginia Administrative Process Act. If you would like to discuss this guidance, please contact me at (804) 698-4125 or wmsmith@deq.virginia.gov.

Sincerely,

Wade M. Smith

Remediation Project Manager Office of Remediation Programs

cc: Pat McMurray, DEQ, CO